

Project Report

Problem Solving with C laboratory – UE18CS152

Project Title – MaggotTherapist

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Our Goal: To build a utility that helps programmers writing their source code in the C programming language save some time in compilation and syntax error correction.

Our Approach: In the course of developing this mini project, we shall demonstrate the use of multiple files, and sequential constructs, conditional and unconditional looping, memory management, and multiple similar programming aspects.

Detailed procedure/Algorithm:

Using file streams, and directory streams, we shall obtain all necessary target specifications such as working directory, and files.

We shall execute shell commands in a sub-shell using our C program to perform necessary compilation, linking and execution tasks. We shall perform automatic error correction, upon redirecting the obtained SYNTAX errors only, upon redirecting the standard error stream to a temporary system file. We shall extensively use this file for making any changes to the user's source file. We shall also create another file that keeps a track of all the changes made to the source file, and thus enabling the program to backtrack and revert any change made.

The sole purpose behind this project is to save some time for the programmer.

NOTE: This utility is not enabled to change more than one character at once and thus is not enabled to mess with the logic of the program.

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